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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/462,615	01/10/2000	YASUSHI KATSUMATA	7246/58772	5312

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EXAMINER

SEAL, JAMES

ART UNIT	PAPER NUMBER
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2135

DATE MAILED: 01/30/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/462,615

Applicant(s)

KATSUMATA ET AL.

Examiner

James Seal

Art Unit

2135

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 March 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on _____ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Art Unit: 2135

DETAILED ACTION

1. This Action is in response to applicant's correspondence of 14 March 2000.
2. The IDS dated 09 July 2001 and 13 May 2002 have been considered and a signed copy is returned with this Action.
3. Abstract has been entered.
4. Claims 1-37 are pending

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over ^{Burns} Burns et. al. US 5931947 A, and further in view of ⁵⁹³¹⁹⁴⁷ ~~Cooper~~ et. al. US ~~5737416~~ A.

6. As per claim 1, the limitation of a first transmitting/receiving unit (a computer connected to a network) is disclosed by Burns' Abstract, Column 1, line 21, or transmitting distribution requested data and for receiving (see Figure 1 element 9 and Figure 4 in particular element 40 and 48). The limitation of a first storing unit Figure 1 element 8 for storing received data (data objects, including files, and directories see Column 6, lines 47-48, note Column 7, lines 57-67 discloses requests to the network for maintaining freshness of files). The limitation of a signal processing unit for performing a decoding process (data decryption) Column 5, lines 51-57. The limitation that the encryption/decryption keys are stored Figure 1, element 3. The further limitation that

Art Unit: 2135

based on said second identification data stored in the first identification storing unit is disclosed Column 4, lines 28-33. The limitation of a first controller for facilitating storage of received data and controls array of encryption devices (crypto devices) is disclosed by Burns Column 5, lines 16-21 and lines 60-65). In particular the latter discloses a controller (control device) for controlling access to data storage and encryption devices. The limitation of a second transmitting/receiving unit for receiving data and id from the first transmitting/receiving unit is disclosed (see abstract and Column 6, lines 24-26). As each of the distributed file system would be a mirror image of every other , then it would contain a second data storing unit for storing a plurality of data (see Abstract, that is a plurality of data objects) from the first transmitting/receiving unit. It would also contain an encryption unit for encrypting data to be sent over an insecure network wherein the data enciphered is based on second identifier Column 6, lines 38-39. Although Burns teaches a unique first identification for each data object, he is silent on the first identification is unique to an equipment.

7. Cooper et. al. teaches the use of *numerical machine identification* as a unique identifier. It would have been obvious for one of ordinary skill in the art at the time the invention was made to have modified the invention of Burns with the teachings of Cooper because using the original machine/device/equipment number in which the object was created would provide proof of ownership of that object. Note Table 2 of Burns, the owner of the digital object ships an owner's key K_0 with the object. Claim 1 is rejected.

Art Unit: 2135

8. As per claim 2, the limitation of including accounting information upon purchase of data with unique ID is disclosed Column 8, lines 6-8. Claim 8 is rejected.

9. As per claim 3, the means for performing encryption and transmitting encrypted data to the first site over an insecure network the data being encrypted based on second identification data is disclosed see Burns Column 5, lines 50-59 Table 2. Claim 8 is rejected.

10. As per claim 4, the means for decoding data on transmitted encrypted data after receipt is disclosed by Burns Column 7 line 36. Claim 4 is rejected.

11. As per claim 5, the limitation that the control unit performs an accounting process in connection with data transfer. Burns discloses the purchasing of data from other sites on the network but is silent that the details of such processes would be administered through the controller. Cooper discloses the use of the controller both to identify data being processed (Column 7, lines 65-67) and in particular the purchasing details (Column 8, lines 8-11). It would have been obvious to one of ordinary skill in the art at the time that the invention was made to have put accounting process via the controller as taught by Cooper under the general database exchange and purchasing functions of the Burns invention because the controller keeps track of the data identification and owner and to insure the owner is paid for his data placing the accounting under the control of the controller which keeps track of data ID would prevent duplication of resources and increase the throughput in the event large amounts of data are exchanged. Claim 5 is rejected.

Art Unit: 2135

12. As per claim 6, the limitation of data portions which dynamically change. Burns discloses that data objects fall into two types: directory data objects and file data objects (Column 4, lines 37-39). Both types of objects are transmitted over the network (column 5, lines 30-45) and as these data objects must be handled differently, the controller must be able to respond dynamically depending on which type of data object is being sent. Hence Burns discloses a control unit (i.e., a controller) which dynamically responds to changing data portion. Claim 6 is rejected.

13. As per claim 7, the limitation that the controller can controls reading operation of the data stored based on the dynamically changing data portions Burns invention supports dynamically changing data objects (files and directories; Column 4, lines 37-39) and Cooper teaches the use of controllers to supply billing information (Column 5, lines 30-45). It would have been obvious to one of ordinary skill in the art at the time that the invention was made to first control unit control the reading operation because it would be necessary for taking into account for example in billing, the data types being stored. Claim 7 is rejected.

14. As per claim 8, the limitation that the control unit inhibits the read operation if the enciphering data is not correct. Error correction is disclosed by Burns Column 9, lines 63-67. Claim 8 is rejected.

15. As per claim 9, the limitation that the first control unit discriminate according to time dependently changes with such changes governed by changing data portions of the enciphered data stored in the first data sorting unit and transmitted together with the data from the second site. Burns discloses monitoring and updating stored data for

Art Unit: 2135

reasons of billing and freshness, thus this would mean that the control unit would have to keep tabs on all data changes, both coming into the system as well as that stored in the system(Column 7, lines 57-67; Column 8, lines 1-9). Claim 9 rejected.

16. As per claim 10, the limitation of the control unit controls the reading operations of data stored in the storage device based on a discrimination resulting from the time dependently changing data portion. Burns discloses updating information (Column 7, lines 57-67) which would imply monitoring the change in data types as a function of time. Claim 10 is rejected.

17. As per claim 11, the limitation that the control unit inhibits the reading operation of data from the data storage unit when discrimination result of time changing data portion indicates that a predetermined time has elapsed. Burns discloses the need for data updates as well as billing (Column 7 lines 57-67; Column 8, lines 1-9). One of ordinary skill in the art at the time that the invention was made would have been motivated to modify Burns to include elapse time as a measured parameter because with the concern for data freshness the time which the data update is made becomes important, especially if the site is being billed for the update, that is the site does not wish to pay for an out of date update. As the controller is the place which takes care of the billing and so this would be the most efficient place to control data reading for updates. Claim 11 is rejected.

18. As per claims 12 and 13, the limitation of of encryption device for decoding data based on the destination is being move and wherein the control unit deletes data when

• Art Unit: 2135

movement in data storage unit is finished is disclosed by Burns Column 6, lines 46-58.

Claims 12 and 13 rejected.

19. Claims 14-26 and 35 correspond to claims 1-13 and 11 in which the data distribution apparatus (of claims 1-13) contains at least one terminal equipment section. Burns discloses that his distributed file system is composed of networked computers (Column 1, lines 21) which constitute (terminal equipment). As per claim 35, the limitation of a terminal apparatus for data distribution is disclosed in Burns (Column 1, line 21). Claim 14-26 and 35 are rejected.

20. Claims 27, 29-34 correspond to claims 1, 2, 6-10 in which a terminal apparatus for data distribution. Burns discloses a file distribution apparatus consisting networked computers for distributing data (Column 1, line 21). It would have been obvious to one of ordinary skill in the art at the time that the invention was made to have replaced the distribution apparatus with computers having software to perform the distribution function because this would place distribution and storage under a single piece of hardware, the computer. Claims 27, 29-34 rejected.

21. As per claim 36 and 37, the limitation of performing a further encryption process based on the first identification of data of the destination to which the data is moved, and wherein the controller deletes the encrypted data stored in the data storing unit when the data has reached its destination (movement finished). Burns is silent about the dependence of the data distribution on destination, but it would have been obvious for one of ordinary skill in the art at the time the invention was made to have provided such

• Art Unit: 2135

a dependency because if the system failed, there would have been a need to maintain duplicate information for retransmission. Claims 36-37 are rejected.

22. As per claim 28, the limitation that a terminal apparatus for data distribution with the additional limitation that performs a decoding process on the data received by the transmitting/receiving unit such that decoding process is based on the decoded enciphering data is disclosed Burns Column 8, Table 2.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Seal whose telephone number is 703 308 4562. The examiner can normally be reached on M-F, 8-5.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu can be reached on 703 305 4393. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308 3900.

JWS

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AU 2135
January 15 2004


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